



**State of Louisiana
Coastal Protection and Restoration Authority**

2017 Annual Inspection Report

for

**Barataria Barrier Island Complex
Project: Pelican Island and Pass La Mer
to Chaland Pass Restoration**

State Project Number BA-38
Priority Project List 11

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Plaquemines Parish

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**2017 Annual Inspection Report
for
Barataria Barrier Island Complex Project:
Pelican Island and Pass La Mer to Chaland Pass Restoration
(BA-38)**

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I. Introduction

The Barataria Barrier Island Complex Project: Pelican Island and Pass La Mer to Chaland Pass Restoration (BA-38) has one project area located between Pass La Mer and Chaland Pass (Chaland Headland, BA-38-2) at the approximate coordinates 30° 08' 00" N latitude and 92° 45' 00" W longitude. The other project area is located between Empire Waterway and Scofield Pass along the Plaquemines barrier shoreline (Pelican Island, BA-38-1) at the approximate coordinates 30° 08' 00" N latitude and 92° 45' 00" W longitude. Both project areas are located in Plaquemines Parish.

II. Project Description and History

The Barataria Barrier Island Complex Project: Pelican Island and Pass La Mer to Chaland Pass Restoration (BA-38) consists of nourishing and rebuilding the shoreline with sediment to create a beach berm, dune, and a back barrier marsh platform at two sites. The wetlands, dune, and swale habitats within the project area have undergone substantial loss due to oil and gas activities, subsidence, sea-level rise, and marine and wind-induced shoreline erosion. Marine processes acting on the abandoned deltaic headlands and barrier islands rework and redistribute the previously deposited sediment. In these areas along the shoreline, there are several locations where the shoreline has receded and decreased to a critical width that is susceptible to breaching during storms. The short-term land loss rate for the Pass La Mer to Chaland Pass area is -46.6 acres per year or -3.36% per year. The short-term land loss rate for the Empire Waterway to Scofield Pass reach is -20.79 acres per year or -4.36% per year.

Construction of the Pass La Mer to Chaland Pass Restoration segment of the project (BA-38-2) was completed in January 2007. The Pelican Island Restoration segment (BA-38-1) was completed in May 2013.

The Barrier Island Maintenance Program (BIMP) performed a maintenance installation of sand fence in January 2010 on the Chaland Headland segment due to damage from Hurricane Gustav in 2008. Approximately 10,000 linear feet of fencing was placed in areas determined to be the most in need of it. Additional sand fencing and vegetative plantings were installed in 2011 at Chaland Headland. This work included planting approximately 16,200 Bitter Panicum (*Panicum amarum*) at a cost of \$56,700; and installing approximately 6,300 linear feet of sand fence at a cost of \$59,850.

III. Inspection Purpose and Procedures

The purpose of the annual inspection of the Barataria Barrier Island Complex Project: Pelican Island and Pass La Mer to Chaland Pass Restoration (BA-38) is to evaluate the constructed project features to identify any deficiencies and prepare a report detailing the condition of project features and recommended corrective actions needed. Should it be determined that corrective actions are needed, the OCPR shall provide, in the report, a



detailed cost estimate for engineering, design, supervision, inspection, and construction contingencies, and an assessment of the urgency of such repairs (O&M Plan). The annual inspection report also contains a summary of maintenance projects and an estimated projected budget for the upcoming three (3) years for operation, maintenance and rehabilitation. The three (3) year projected operation and maintenance budget is shown in Appendix C. A summary of past operation and maintenance projects completed since completion of the project can be found in Section II.

An inspection of the Barataria Barrier Island Complex Project: Pelican Island and Pass La Mer to Chaland Pass Restoration (BA-38) was not performed in person this year. It was agreed by CPRA and NOAA that observations would be made viewing the latest Google Earth Imagery. This imagery, taken on November 20, 2016, is included in Appendix B of this report.

IV. Inspection Results

Sand Fence

The fencing installed on the Chaland Headland segment was replaced in 2010 after damage from Hurricane Gustav in 2008 and was subsequently removed by Hurricane Isaac in 2012. However, the vegetation appears to be performing the function of the sand fencing therefore no replacement is recommended at this time.

The fencing on the Pelican Island segment of the project was installed after Hurricane Isaac made landfall in 2012 and is still in place with no notable damage. Most of the fencing is covered by sand at this time.

Containment Dike

The dike on the Chaland Headland segment of the project appears to be subsiding and degrading slowly. There are some breaches where water can flow freely between the surrounding marsh and the project area. The western portion of the area shows some ponding in the scour locations from the storm events seen over the years. These ponds are not connected to anything but may get flushed during high tide events.

The dike on the Pelican Island segment has degraded and water is flowing freely into the marsh platform. This is also causing some erosion into the marsh platform.

Settlement Plates

The settlement plates were not inspected at this time.

Vegetative Plantings

Both project segments are heavily vegetated and do not need any plantings at this time.

V. Conclusions

The Barataria Barrier Island Complex Project: Pelican Island and Pass La Mer to Chaland Pass Restoration (BA-38) is performing very well considering the condition the 2008 and 2012 Hurricane seasons left it in. The natural vegetation has taken hold and there should be no issues with vegetation in the near future. At this time there is no need to replace any missing sand fencing as it is not necessary due to the vegetation.

VI. Recommendations

There are no recommendations based on this inspection.

Immediate Repairs

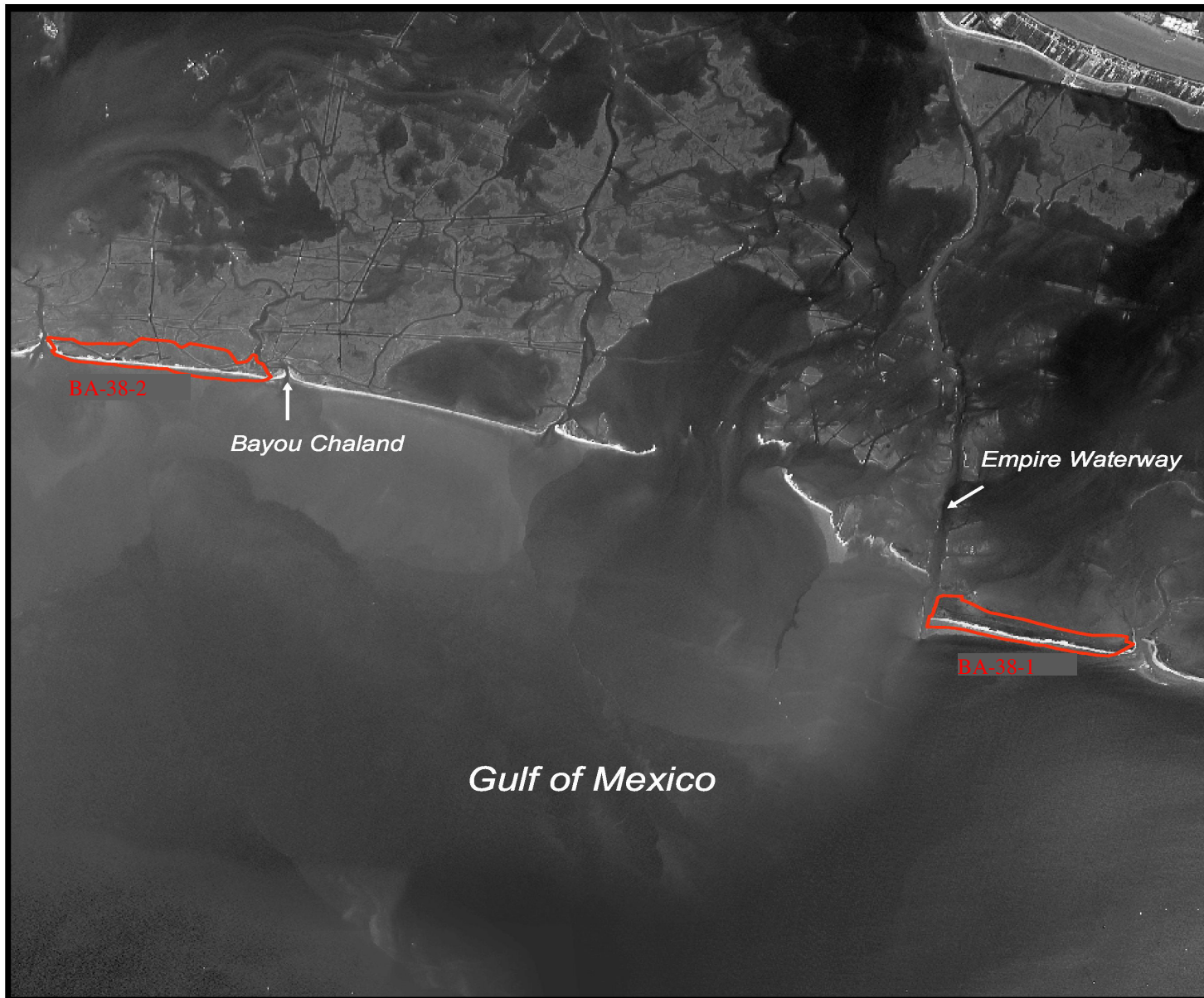
- None at this time.

Programmed Maintenance

- None at this time.


Appendix A

Project Features Map



Pelican Island and
Pass La Mer to Chaland
Pass Barrier Island Restoration
(BA-38)

Legend

 BA-38 boundary



1 0.5 0 1
 Miles

Data Source:
U.S. Geologic Survey
National Wetland Research Center
Coastal Restoration Field Station
Louisiana Department of Natural Resources
Coastal Restoration Division and GIS Lab
2000 SPOT Imagery
Map Date: May 25, 2004

Appendix B

Photographs



Photo #1 – Chaland Headland Full Area.



Photo #2 – Chaland Headland West Side.

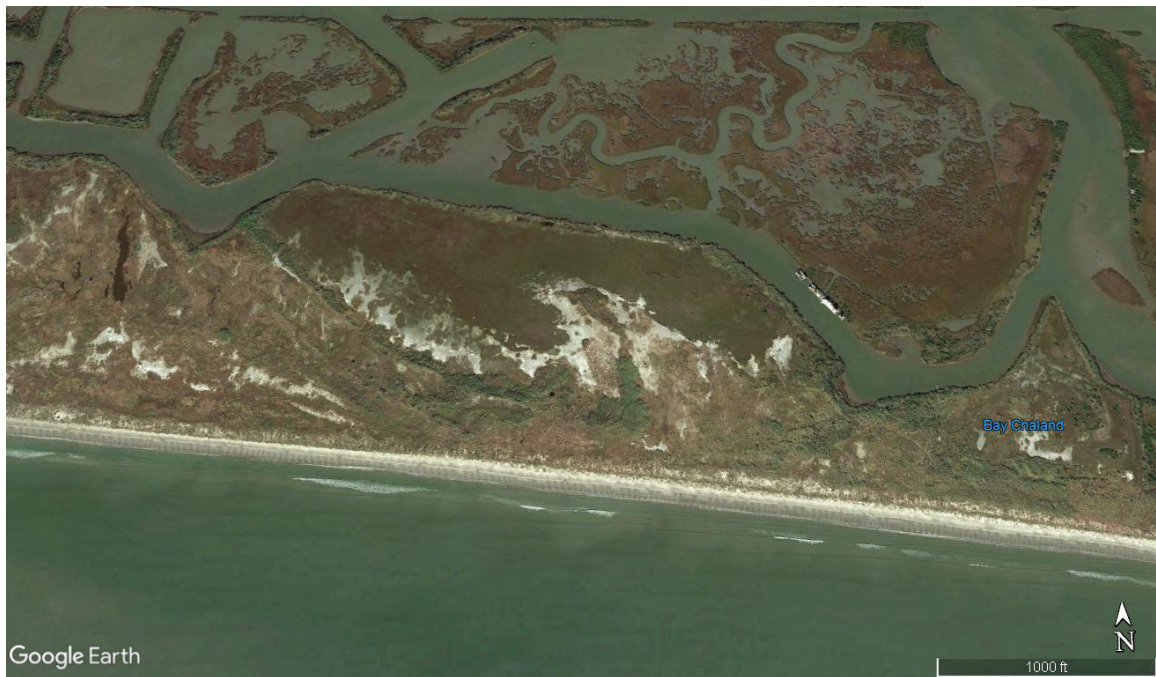


Photo #3 – Chaland Headland East Side.

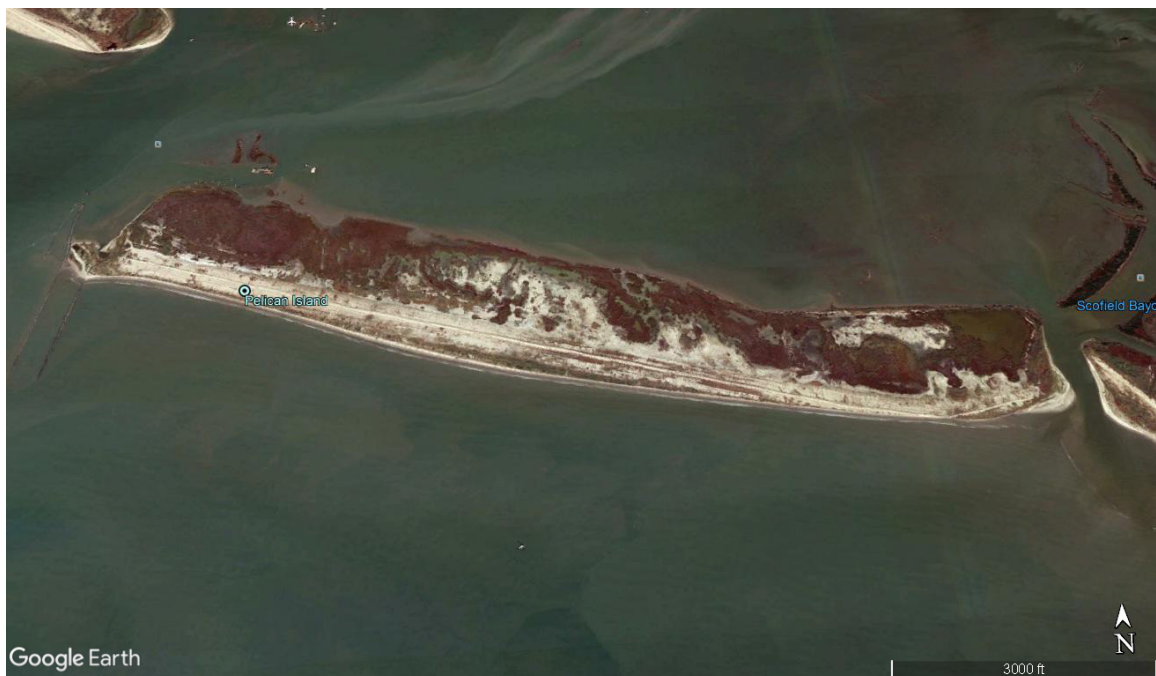


Photo #4 – Pelican Island Full Area.



Photo #5 – Pelican Island West Side.



Photo #6 – Pelican Island East Side.

Appendix C

Three Year Budget Projection

BA-38 Barataria Barrier Island Complex (BA-38)																											
Federal Sponsor: NOAA-Fisheries																											
Construction Completed : 2007/2013																											
PPL 11																											
						Pelican Year 0																					
Current Approved O&M Budget	Year 0	Year - 1	Year -2	Year -3	Year -4	Year -5	Year -6	Year -7	Year -8	Year -9	Year -10	Year -11	Year -12	Year -13	Year -14	Year -15	Year -16	Year - 17	Year -18	Year -19	Year -20	Year -21	Year -22	Year -23	Year -24	Project Life	Currently
June 2009	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28	FY29	FY30	FY31	FY32	Budget	Funded
State O&M	\$4,200	\$4,200	\$4,200	\$152,750	\$4,200	\$230,189	\$7,800	\$340,772	\$4,200	\$152,750	\$4,200	\$4,200	\$152,750	\$4,200	\$152,750	\$4,200	\$4,200	\$152,750	\$4,200	\$4,200	\$4,200	\$4,200	\$4,200	\$4,200	\$4,200	\$1,413,910	\$905,260
Corps Admin																										\$0	\$0
Federal S&A	\$3,900	\$3,900	\$3,900	\$9,900	\$3,900	\$12,900	\$3,900	\$17,400	\$3,900	\$9,900	\$3,900	\$3,900	\$9,900	\$3,900	\$9,900	\$3,900	\$3,900	\$9,900	\$3,900	\$3,900	\$3,900	\$3,900	\$3,900	\$3,900	\$3,900	\$130,500	\$73,500
Total																										\$1,544,410	\$978,760
Projected O&M Expenditures																										Remaining	Current 3 year
																										Project Life	Request
Maintenance Inspection	\$4,200	\$4,200	\$4,200	\$4,200	\$4,200	\$4,200	\$4,200	\$4,200	\$4,200	\$4,200	\$4,200	\$4,200	\$4,200	\$4,200	\$4,200	\$4,200	\$4,200	\$4,200	\$4,200	\$4,200	\$4,200	\$4,200	\$4,200	\$4,200	\$4,200	\$63,000	\$12,600
General Maintenance																										\$0	\$0
Sand Fencing CHALAND				\$100,000						\$100,000					\$100,000											\$100,000	\$0
Sand Fencing PELICAN								\$100,000				\$100,000						\$100,000								\$200,000	\$100,000
Vegetative Plantings CHALAND																										\$0	\$0
Vegetative Plantings PELICAN						\$150,000		\$100,000																		\$0	\$0
Dike Gapping PELICAN								\$25,000																		\$0	\$0
Surveys						\$3,600	\$3,600	\$3,600																		\$0	\$0
Federal S&A	\$3,900	\$3,900	\$3,900	\$9,900	\$3,900	\$12,900	\$3,900	\$17,400	\$3,900	\$9,900	\$3,900	\$3,900	\$9,900	\$3,900	\$9,900	\$3,900	\$3,900	\$9,900	\$3,900	\$3,900	\$3,900	\$3,900	\$3,900	\$3,900	\$3,900	\$76,500	\$17,700
State Costs:																										\$0	\$0
E&D				\$8,550		\$12,389		\$17,972		\$8,550			\$8,550		\$8,550			\$8,550								\$25,650	\$8,550
Construction Oversight				\$40,000	\$0	\$60,000	\$0	\$90,000	\$0	\$40,000	\$0	\$0	\$40,000	\$0	\$40,000	\$0	\$0	\$40,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$120,000	\$40,000
Total	\$8,100	\$8,100	\$8,100	\$162,650	\$8,100	\$243,089	\$11,700	\$358,172	\$8,100	\$162,650	\$8,100	\$8,100	\$162,650	\$8,100	\$162,650	\$8,100	\$8,100	\$162,650	\$8,100	\$8,100						\$585,150	\$178,850
O&M Expenditures from COE Report				\$248,510				Current O&M Budget less COE Admin						\$978,760			Current Project Life Budget less COE Admin						\$1,544,410				
State O&M Expenditures not submitted for in-kind credit				\$0				Remaining Available O&M Budget						\$730,250			Total Projected Project Life Budget						\$833,660				
Total Estimated O&M Expenditures (as of April 2017)				\$248,510				Incremental Funding Request Amount Current 3 Years						-\$551,400			Project Life Budget Request Amount						-\$710,750				

Appendix D

Field Inspection Form

MAINTENANCE INSPECTION REPORT CHECK SHEET

Project No./Name: **(BA-38-2) Pass La Mer to Chaland Pass Restoration**

Date of Inspection: 11/20/2016 Time: N/A

Structure No. n/a

Inspector(s): CPRA

Structure Description: n/a

Water Level N/A

Type of Inspection: Annual

Weather Conditions: N/A

Item	Condition	Physical Damage	Corrosion	Photo #	Observations and Remarks
Sand Fencing	Bad				Removed by Hurricane Isaac in 2012. No replacement needed at this time.
Containment Dike	Fair				Some degradation but mostly still intact.
Settlement Plates	N/A				Not inspected this cycle.
Plantings	Good				Heavy vegetation noted on all areas of the project.
					Note: This annual inspection is based on the latest Google Earth imagery.

MAINTENANCE INSPECTION REPORT CHECK SHEET

Project No./Name: **(BA-38-1) Pelican Island Restoration**

Date of Inspection: 11/20/2016 Time: N/A

Structure No. n/a

Inspector(s): CPRA

Structure Description: n/a

Water Level N/A

Type of Inspection: Annual

Weather Conditions: N/A

Item	Condition	Physical Damage	Corrosion	Photo #	Observations and Remarks
Sand Fencing	Good				Still in place and performing as designed. Most areas completely covered. No need for maintenance.
Containment Dike	Poor				Mostly degraded. Causing some erosion to the marsh platform.
Settlement Plates	N/A				Not inspected this cycle.
Plantings	Good				Heavy vegetation noted on all areas of the project.
					Note: This annual inspection is based on the latest Google Earth imagery.